

**Table S3.** Strains and plasmids used in the study

Strain	Relevant characteristic (s)	Source/Reference
<b><i>E.coli</i></b>		
<b>TOP10</b>	<i>mcrA Δ(mrr-hsdRMS-mcrBC) Φ80lacZΔM15</i> <i>ΔlacX74 recA1 rpsL (StrR) endA1</i>	Invitrogen
<b>S17-1</b>	<i>Sm<sup>r</sup> pro r<sup>-</sup> m<sup>+</sup></i> RP4-2 integrated (Tc::Mu) (Km::Tn7)	Lab collection
<b><i>P. denitrificans</i></b>		
<b>Pd1222</b>	Wild-type	ATCC
<b>RPd1</b>	Pd1222 <i>hpbD</i>	11
<b>RPd2</b>	Pd1222 <i>hpbB1-hpbC1</i>	11
<b>RPd3</b>	Pd1222 <i>hpbB2-hpbC2</i>	11
<b>RPd4</b>	RPd2 <i>hpbB2-hpbC2</i>	11
<b>RPd5</b>	Pd1222 <i>hpbR</i>	11
<b>RPd6</b>	Pd1222 <i>hpbA</i>	11
<b>RPd10</b>	RPd1 with pRK10	11
<b>RPd11</b>	RPd4 with pRK11	11
<b>RPd12</b>	RPd6 with pRK12	11
<b>RPd13</b>	Pd1222 <i>putA</i>	This study
<b>RPd14</b>	RPd4 <i>hpbD</i>	This study
<b><i>R. sphaeroides</i></b>		
<b>2.4.1</b>	Wild-type	ATCC
<b>RRs1</b>	Rs <i>ΔhpbD</i>	This study
<b>Plasmids</b>		
<b>pSUP202</b>		5
<b>pSUP404.2</b>		5
<b>pRK1</b>	pSUP202 derivative, <i>hpbD::Cm<sup>r</sup></i>	11
<b>pRK2</b>	pSUP202 derivative, <i>hpbB1-hpbC1 ::Cm<sup>r</sup></i>	11
<b>pRK3</b>	pSUP202 derivative, <i>hpbB2-hpbC2 ::Kan<sup>r</sup></i>	11
<b>pRK4</b>	pSUP202 derivative, <i>hpbR::Cm<sup>r</sup></i>	11
<b>pRK5</b>	pSUP202 derivative, <i>hpbA::Cm<sup>r</sup></i>	11
<b>pRK10</b>	pSUP404.2 derivative, Promoter- <i>hpbD</i>	11
<b>pRK11</b>	pSUP404.2 derivative, Promoter- <i>hpbB1-hpbC1</i>	11
<b>pRK12</b>	pSUP404.2 derivative, Promoter- <i>hpbA</i>	11
<b>pRK14</b>	pSUP202 derivative, <i>putA::Cm<sup>r</sup></i>	This study
<b>pRRs1</b>	pSUP202 derivative, <i>hpbD::Cm<sup>r</sup></i>	This study